

What is claimed is:

1. A method for modulating neuronal cell development in a mammal comprising the steps of (a) preparing a composition comprising a purified BMP-11 polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:11; and (b) administering said composition to said mammal.

2. A method for inducing neuronal cell formation, growth differentiation, proliferation, and maintenance in a mammal comprising the steps of (a) preparing a composition comprising a purified BMP-11 polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:11; and (b) administering said composition to said mammal.

3. A method of inducing formation of neuronal tissue in a mammal comprising the steps of (a) preparing a composition comprising a purified BMP-11 polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:11; and (b) administering said composition to said mammal.

4. A method of inducing formation of neuronal tissue, wherein said method comprises the steps of (a) preparing a composition comprising a purified BMP-11 polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:11; and (b) administering the composition to neuronal cells *in vitro* and recovering said tissue.

5. A method for maintaining neuronal tissue comprising the steps of (a) preparing a composition comprising a purified BMP-11 polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:11; and (b) administering said composition to said tissue.

6. A method for maintaining neuronal tissue comprising the step of administering a composition comprising BMP-11.